MEETING PLACE

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MAYAN EXCAVATIONS

8,000-YEAR-OLD CLOTH

DISPLAY IN THE

ELECTRONIC AGE

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UNCOVERING A MAYAN CENTRE

An informal report from the field

DAVID PENDERGAST
Field Party Leader, Rockstone Pond, British Honduras

In January 1964 the Royal Ontario Museum began the initial season of a proposed five year project of excavation at the Mayan ceremonial centre of Rockstone Pond, located 30 miles north of Belize City, the capital of British Honduras. The site was selected for excavation because of its large size, the architectural complexity which was evident from test excavations made last September and because there were strong indications that a long period of occupation characterized the area, which up to this time has been largely unknown archaeologically.

Since previous testing had yielded a portion of the ceramic sequence, some knowledge of architectural remains and a few elaborate artifacts, initial work in this season was concentrated on clearing one of the larger pyramid temple structures in the ceremonial centre. With a crew of 13 men, the task of stripping away the fallen debris on the complex structure was begun. At the present time the greater part of the pyramid, as well as the temple atop the structure, have been cleared but a good many problems remain to be solved and no attempt has yet been made to cut into the structure to locate earlier structures which may exist inside.

Following initial work on the main pyramid a portion of the crew was shifted to a smaller structure, lying at the side of one of the two main plazas, which had been partially tested in the preceding year. Excavation of this structure has now virtually been completed and a second structure located atop the same platform is in the process of being excavated. Both buildings have yielded large quantities of ceramic material in the form of sherds and the latter has, in addition, given us a good deal of new information on the architectural style of Rockstone Pond. Although partially collapsed, the second structure, marked in several areas by walls standing to a height of over six feet, has over

one doorway a portion of the vaulted ceiling of the structure remaining intact. The buildings examined thus far form part of a complex of five major mounds and several smaller structures, making up the ceremonial heart of the site.

One distinctive feature of Rockstone Pond lies in the fact that stretching beyond the ceremonial centre for a distance as yet unknown are smaller mounds, many of them house mounds, others small ceremonial structures of various kinds. It is literally true of this site that there is almost no area of any size within which one cannot find groups of these smaller mounds. While it is not possible at present to estimate the total size of the site, we do know that the Rockstone Pond loop road, a rough oval 7½ miles in length, does not encompass the Rockstone Pond archaeological site. Mounds are found outside of the perimeter of the road and in all areas inside it. An estimate for total site area of three square miles or more is probably not too far from correct.

This suggests in turn that the economic base in this area was a somewhat stable one. In other words, agricultural soil of reasonable good quality and water were present in good supply. One of the main reasons for the apparently heavy and long term occupation of Rockstone Pond seems to have been the existence of the pond for which the site is named. The pond is, in effect, a small natural lake probably little or not at all modified by the Maya but one which, according to inhabitants of the area, never runs dry while most of the other water catch basins and supplies in the area are known to go dry during some years. A certain water supply was then one of the main attractions of the site.

Given these two necessary elements for occupation of an area, water and agricultural land, it appears that Rockstone Pond was occupied for rather a considerable length of time. It is not yet possible to determine with precision the span of time represented by the occupation of the site but we do know that both the classic and the formative, or preclassic, periods are represented. The classic, and the preceding short proto-classic, periods span together the time from roughly the second century A.D. to the ninth, or perhaps the early tenth century. The period extends back beyond the second century A.D. into the pre-Christian era, some sites going back into at least 1500 B.C. It is conceiv-

able then, although not demonstrated yet by materials from Rockstone Pond, that the time span represented could be as great as 1000 or 1500 B.C. running down to perhaps 900 A.D. There is little question that the span is at least from slightly before the beginning of the Christian era on into the ninth century, a total of something around a thousand years. It would seem at present then that the picture is of long term occupation, complex development architecturally and in many other ways, and a dense concentration of population.

Perhaps the most striking discovery made at Rockstone Pond to date is the first of a group of at least two tombs. Tomb 1 at Rockstone Pond, like tombs in most Maya sites, lies not in the ceremonial centre but rather in one of the small mounds away from the heart of the site. Although unprepossessing in appearance, the mound containing Tomb 1 has proved to be the source of a great deal of information about burial customs at Rockstone Pond and about many types of smaller elaborate artifacts from the site. The tomb which is in fact not a vaulted burial chamber of the kind found in many other Maya sites but rather a crypt lined with roughly shaped stone blocks, capped by large slabs of the local flint, was found despite its less elaborate structural character to contain a tremendous amount and range of accompanying artifacts with the skeleton of what was assumed to have been a Maya priest. Arranged on the earth floor around the skeleton were seven pottery vessels and several shell containers, as well as an unusual amount and variety of jade artifacts, shell rosettes, discs, beads and intricately carved pendants. Lying near the skull was a stone kneeling human figure, the face strongly reminiscent of those found in other parts of the Maya region and in the southeastern Gulf coast of Mexico. One of the pottery vessels had, in addition, contained originally a large number of pearls, drilled as beads, and a great many polished iron pyrites inlays, many of geometric design, several shaped in the form of faces. Two necklaces, one of approximately 85 large shell beads, the other of 22 jade beads, lay around the neck of the occupant. Several large eccentric flints have been found buried below the body.

Preliminary analysis of the tomb contents suggests the Maya pattern at Rockstone Pond is particularly rich. This is especially important in view of the fact that in the past it has been frequently assumed

that the coastal portion of British Honduras in particular was something of a cultural backwater and the signs of complex development found elsewhere in the Maya region did not really occur here. The heights of Maya classic civilization were never quite attained. More than anything else the quality of jade carving in the material from Tomb 1 suggests that this was certainly not the case. Classic development here was as high as that found in many other portions of the Maya region. It is interesting to note too that as mentioned earlier the tomb is not an elaborate one in structure, rather it is a simple form, a crypt rather than a burial vault, and yet the contents are highly elaborate. This suggests either that the vaulted burial chamber was not used, or was not widely used at Rockstone Pond, or more likely that even in a simple crypt-like tomb a great range of objects might be deposited to accompany a priest on his journey after death. All of this points to a highly developed religious complex and serves to underscore the suggestions made earlier regarding the stability of the economic base and the elaboration resulting therefrom. Another element of potentially great importance from the tomb is the human figurine. As I noted above the face particularly, but also the body of the figurine to some extent, are reminiscent of those found in the southeastern Gulf coast of Mexico, falling within the range of the Olmec type style. This would appear to lend at least weak support to the theory that the Olmec cultural development attained a high level of complexity, perhaps earlier than any other in Mesoamerica, and may have been one of the motive forces in the development of classic Maya civilization. However, it is far too early yet to develop theory from the Rockstone Pond data though the Tomb 1 materials provide a small beginning in that direction.

Tomb 1 was found to lie on one edge of a small mound, one wall of the tomb being formed by a dry-laid masonry wall which extended on into the remainder of the small mound. This wall has now been found to be part of the rectangular pattern of dry-laid masonry walls which have associated with them a well-preserved plaster floor. Trenching within the compound formed by these walls which makes up the bulk of the small mound has revealed the existence of a second tomb. Tomb 2, like Tomb 1, is a crypt rather than a vaulted structure but is distinguished from Tomb 1 by the fact that the entire capping

of the crypt remains intact, while in Tomb 1 at least two of the roofing slabs had collapsed with the result that a great deal of the overlying stone and earth cascaded into the tomb smashing some of the pottery vessels and disrupting to some extent the tomb contents. In Tomb 2 this is not the case. We can see at the moment that there is a fair air space below the capping slabs which are covered by a plaster flooring and a deposit of about three feet of rough stone fragments. The bulk of Tomb 2 is, however, filled with pieces of limestone, quite clearly not fall from the roof or above it but almost certainly intentional fill. What this means we are not yet in a position to say. If Tomb 1 lies on the periphery of the mound, Tomb 2 in the mound centre might be expected to contain a larger amount of material, a more elaborate range of material, this representing the burial of someone of greater importance. At the same time it is equally possible that Tomb 2 will prove to be completely empty, to contain not a single scrap of archaeological material. It will be a week or more before we can answer this question. Whatever the case though, it is clear that the intentional filling of the tomb, because it was done with great care, is likely to have broken or disrupted the tomb contents. Then we will be faced once again with the prospect of restoring the materials, trying to determine their original position within the tomb, rather than having the luxury of opening a tomb and finding everything in place, something that occurs fairly frequently in many Maya sites.

To date then, our efforts have resulted in acquisition of considerable knowledge regarding the architectural style of Rockstone Pond which is in many ways rather closely related to that of the Peten in Guatemala and of knowledge regarding the burial patterns at the site.

Now facing us in the two months remaining of the field season are completion of excavation of the smaller structure mentioned earlier which is about half excavated at the present time, the clearing of Tomb 2, and further investigation in the mound in which Tombs 1 and 2 lie. Barring the existence of other tombs in the mound, we hope also to cut stratigraphic test trenches in several portions of the site in order to gain a better understanding of the sequence of events as represented by ceramics over the period of site occupation.

At the moment the sherd materials, the ceramics, recovered from test trenches are parallel in several ways to the remains from San José, a site inland in British Honduras, excavated in the late '30s by J. R. Thompson but at the same time they seem not to follow the sequence derived by Thompson from his San José excavations. It is conceivable then that work in this and future seasons will serve to alter our understanding of ceramic change over time during classic and formative, or pre-classic, periods.

We expect in coming seasons to continue examination of architectural remains with the aim particularly of determining the sequence of architectural development over time, which will involve unravelling some of the larger structures and searching for earlier structures within them. This will be done with the hope of providing an answer to the question of whether there was during the formative time period any complex architectural development at this site, a question of particular importance in our understanding of the growth of Maya civilization.

Concurrently with the archaeological research during the 1964 season, a zoological team from the Royal Ontario Museum has undertaken collection of mammals and other animals in the area of Rockstone Pond and other portions of British Honduras. It is hoped that in future years other specialists will be able to join in the research at Rockstone Pond to add not only to our knowledge of the flora and fauna, geology and other facets of British Honduras, but also to the ecological and environmental background which provides the setting for the archaeological site.

COLLECTING MAMMALS IN BRITISH HONDURAS

In February Dr. R. L. Peterson, curator of mammalogy, and Mr. John B. Heppes, departmental technician, flew to Belize, British Honduras, where they were met by Mr. David Pendergast, leader of the ROM archaeological field party. They proceeded to Augustine, a Forestry

Department District Headquarters, located in central western British Honduras on the edge of the Mountain Pine Ridge. Mr. Pendergast returned immediately to Rockstone Pond and Peterson and Heppes spent a full week collecting mammals in the surrounding area, using the facilities of a small annex to a rest house as headquarters. They explored three large caves and a number of smaller ones and obtained 67 specimens including several species new to the ROM collections as well as a fine specimen of the quite rare hairy-legged vampire bat.

On February 27 Mr. Pendergast returned and the field party was moved to Rockstone Pond where the facilities of a newly constructed palm thatch laboratory and living quarters became the centre of activities for the remainder of the trip.

The local population had been advised of our requirements and one of the excavation crew was released to our employ on a full time basis and arrangements were made to purchase specimens collected by others. The results proved quite satisfactory and required a daily work period from 6 a.m. to 11 p.m. to cope with the collecting and preparing of the specimens.

A total of 422 specimens were collected in British Honduras including approximately 43 different kinds. Among the most exciting specimens was a single small bat of the genus *Vampyressa* which heretofore was known only from extreme southeastern Costa Rica, southward into South America. This specimen extends the known range for this species some 750 miles. Another significant acquisition was a fine series of 10 howler monkeys, a species which local authorities had felt had virtually disappeared from most of British Honduras. The collection includes several species which are new to the collections of the ROM. A large number of photographs were taken, including several close-up studies of the facial features of living bats.

In summary, the results of the expedition were most gratifying. All preliminary arrangements proved completely adequate and the field party experienced no troublesome delays, shortages or inadequacies in equipment, facilities or assistance. Complete cooperation and most helpful assistance were rendered by all persons encountered from the top government officials to the local natives.

R.L.P.

THE WORLD'S OLDEST TEXTILES

Ontario was still in the Ice Ages when these scraps of wool were new

HAROLD B. BURNHAM
Associate Curator of Textiles

Last November in the Hittite Museum in Ankara, the writer had the thrill of examining the oldest textiles that have ever been found. Unprepossessing as they now appear, a close examination shows an unexpectedly high quality, far superior to many early finds of later date. They come from burials at Chatal Hüyük, a site of the Early Neolithic period in Anatolia. The excavator of the site is Mr. James Mellaart, who discovered it during an archaeological survey of the Konya Plain under the auspices of the British Institute of Archaeology in Ankara. It is situated a short distance south-east of the present city of Konya beside the Charsamba Chay, a river flowing from Lake Beysehir through the most fertile alluvial soil in this part of Anatolia. When first discovered the site showed promise of great importance, not only because of its richness of surface finds, but also because of its size. It consists of two mounds covering an area of almost thirty-two acres without trace of fortifications. The larger of these is the older and more important, and rises almost sixty feet above the present level of the plain; the smaller, across the old river bed, rises only about twenty feet. All other known neolithic sites in the area can only be described as villages, and none can compare with Chatal Hüyük in size and extent. It seems clear that it must have been the chief centre of the Konya Plain some eight thousand years ago.

Excavations have now been carried on for three years under Mr. Mellaart's direction, and the site has more than fulfilled its early promise. The costs of the expeditions have been met by grants and donations from various sources including, in 1963, the Royal Ontario Museum, University of Toronto, which will also contribute to the work planned for the coming summer. In three years, working on only a small area, ten occupation levels have been established, and a sophistication of cultural status has been revealed that is, in several respects,

unique for the period. Other equally rich sites may yet be discovered, but none now known can rival Chatal Hüyük. Although no Carbon 14 dating has yet been established, the richest levels found appear to date from the seventh millennium B.C.

The excavations have shown a culture with art, architecture and religion highly developed. Many of the artifacts were not made of materials found locally. Obsidian for mirrors, knives and lance heads, alabaster and marble for statuettes, and shells for necklaces were brought from the distant mountains surrounding the plain, or from the shores of the Mediterranean still farther afield. In the crafts, there is a high standard of mastery in working the imported stone; copper and lead were used for beads; basketry and wood-carving were far advanced; pottery was known, but was still rare. The most amazing discovery, made in 1961 and repeated in the following seasons, has been finely woven woollen fabrics. Until these were excavated, the earliest textiles known were from the Fayûm in Egypt dating from the fifth millennium B.C. The finds at Chatal Hüyük push the history of the textile arts farther back by some two thousand years.

Ancient textiles in archaeological excavations are preserved only under unusual circumstances. Even a small amount of moisture will encourage the growth of destructive moulds. For textiles to survive in a more or less natural state requires either extremely arid conditions as in Egypt or Peru, or permafrost as in the Norse burials in Greenland and in the tombs of the Scythian princes in Siberia. The presence of certain chemicals may act as a preservative: tannin in the Bronze Age burials of Denmark, or metallic salts impregnating the silks found in the patina of Chinese bronzes of the early dynasties.

A simpler agent is responsible for the preservation of the textiles from Chatal Hüyük. At some time they were subject to intense heat caused by fire. Due to the scarcity of oxygen in the space in which they were confined, the textiles were not consumed, but only thoroughly carbonized. The same agency preserved the two other groups of recent textile finds from the Near East that have been studied by the Textile Department of the Royal Ontario Museum. In age these cannot compete with those from Chatal Hüyük, as they date only from the ninth century B.C. One group from Hasanlu near Lake Urmia in

Iran, was sent to us by the University Museum, Philadelphia; the other, from Patnos near Lake Van in eastern Turkey, was studied for the Hittite Museum in Ankara.

In Level VI at Chatal Hüyük, associated with plaster reliefs and accomplished wall paintings, burials in which skeletal remains had been wrapped in woven and plaited woollen fabrics were found under low platforms. Several aspects of the burial customs of the people are clear. The bodies of the dead were either given preliminary burial, or were exposed to the elements until only the bones were left. These were collected, carefully wrapped, and buried under the low platforms that were then covered with rush matting, quite probably on the occasion of a special religious ceremony. As a result of the intense heat of the fire which destroyed this particular level, all the fragments are now almost black in colour, and the largest is no more than a few square inches in size. Their surprising quality is evident only on close examination. Both woven and plaited fabrics are apparently of prepared combed wool of fine, even quality that could only have come from domesticated sheep. That sheep existed is proved by finds of their bones. Today in Anatolia, wool and goat-hair are the usual basic textile fibres, and it is interesting to note that neither mohair nor goat bones have yet been found at Chatal Hüyük.

The woven materials are of the simplest construction, being plain-woven tabbies of excellent quality not unlike light-weight wool dress goods of today. On one of the larger fragments that was found covering a skull, a twined cord worked through the loops at the end of the warp has survived. This is a starting edge, and gives an important clue to the type of equipment used. It was probably a warp-weighted loom similar in type to that which was common throughout Asia Minor in classical antiquity. The usual evidence for the existence of the warp-weighted loom is the characteristic terracotta loom weights, and these have been found in the higher levels at Chatal Hüyük. None has been found in Level VI which is virtually pre-ceramic, but there are a number of small round worked stones of unknown use that would have served the purpose admirably. Whether these are loom weights must still be investigated.

These finely woven textiles, perhaps originally garments, were the

first wrapping for the bones. As an outer covering for the bundles, fabrics in a twined construction of a shawl-like quality were used. These were made with a close-set series of vertical threads, held together by a second series of transverse threads twined across them at intervals of about half an inch producing a firm but pliable net. Some of the bundles are small; others are quite heavy and bulky, and were tied together with firmly woven narrow tapes, or twisted cords of vegetable fibre.

The question naturally arises as to whether the fabrics were coloured or patterned. From a careful study of the very numerous fragments, it can safely be said that no evidence of patterning of any kind exists. Tapestry weaving of the type still used for kilim rugs in Anatolia is what would be expected, but it is probable that the use of such woven patterns was a somewhat later development in the textile crafts. The use of colour is more likely, but no firm answer can be given owing to the carbonized condition of the fragments. From the wall paintings we know that these ancient people enjoyed colour, and it is not impossible that they dyed their wool. Some of the commonest weeds growing in the neighbourhood of the mounds are well known dye sources. Madder for red, woad for blue, and weld for yellow are all found. They have been used as dyes for centuries, and it is indeed possible that their properties may have been known to the ancient inhabitants of Chatal Hüyük.

It is obvious from the quality of these fragments that they are not from the beginnings of textile history. Already at this early date we find a mastery of technology: fine, well-combed wool, expertly and evenly spun from the fleece of domesticated sheep, was used to produce fabrics of high standard. The automated textile industry of today may take pride in an ancient tradition stretching back more than eight thousand years to a time when the melting glaciers of the last Ice Age were just leaving Toronto.

THE MUSEUM, CAN WE GET WITH IT?

In the electronic age, seeing is not enough

HARLEY PARKER
Chief of General Exhibition

Daniel Boorstin in *The Image,* talking of cultural insulation in the Istanbul Hilton, says: "They keep the natives in quarantine while the tourists, in air-conditioned comfort view them through a picture window." The tourist in his air-conditioned and coincidentally thought-conditioned lobby finds the sensuous complexity of native life reduced to the mental and emotional dimensions of "picture window" size. Istanbul, with its pulsating life, cannot be made into a conventional museum, so we put the tourists instead of the residents into glass cases. Cases, which arbitrarily fragment space whether they are in a museum or Istanbul, generate a point of view and the possibility of detachment so necessary if we wish to miss completely the aspects of any foreign culture.

The sense of smell with its ability to synthesize so many sensory components is conspicuously absent. The importance of touch and smell in conjuring up a sense of total involvement completely divorced from any sort of documentation has been demonstrated many times in the experience called *déjà vu.*

I am not suggesting that visual background information is irrelevant, rather I am trying to show that it is only one part of communication. Certainly all the techniques for data communication can be pertinent to the explanation of museum artifacts and specimens, but no amount of information alone will do the job. We need techniques for recalling the sensory components which figured largely in the life of the maker or user of the artifact. Sight alone is not enough.

The re-stimulation of the sense life of audiences must become central to museum interpretation. This does not, however, merely mean creating a facsimile of the original situation complete with touch and smell. The impact of such on the antiseptically oriented twentieth-century western man would probably result in nothing but revulsion.

It appears that the problem has two facets. Interpreting other cultures

through our own cultural assumptions can only give misleading distortions, thus it is necessary to find techniques of disorientation. We must also stimulate sensory closure, which can be defined as imaginative completion by the use of senses that were not included in the original experience. The latter is necessary to build an audience response, not of dispassionate survey, but of intense involvement. In the past the sequence of museum exhibits has tended to be a series of frames explaining what others have learned, thus tending towards detachment from the dynamics of learning. Using new methods of design and modern technology we must work toward developing in the visitor a mental and emotional attitude which will permit a high degree of involvement in the unique rhythm and tenor of the foreign culture or discipline being presented. The idea that new knowledge is purely additive rather than constitutive, and that all primitives or members of antecedent cultures are simply underdeveloped Western Europeans or Americans is a product of our own conditioned bias. Each culture must be regarded as different not merely on the basis of beliefs or knowledge but on the basis of the unique interplay of sensibilities which made the beliefs and the particular knowledge possible.

The artifacts of man, configurations of his spatial and temporal needs, allow for an analysis of the sensory mix of a culture; they allow us an insight into the bias of sense, whether it is of the eye, the ear or the nose. Spaces are culturally conditioned patterns that proceed from our sensory needs and preferences and which constitute the stage for action. Customarily, all information is dealt with on the basis of these patterns. This serves very well so long as we are dealing with artifacts which had their inception within our culturally based sense of order. When we deal with cultures with different temporal and spatial orientations we are faced with problems which cannot be solved by mere dissemination of background information. The designer must learn to rearrange the sensory life as a focal point from which the audience can empathically encounter the assumptions of other cultures; artifacts must be seen as "objective co-relatives" of the makers' states of feeling. In this way we can enlarge our awareness instead of merely fitting more data into prior postulates.

The designer, like all creative men, must be sensitive to and critical

of the *a priori* ideas of his own culture. Much faulty designing could be avoided by a rigorous scrutiny of our assumptions. For example, I have been aware for some time of repetition as a form of sensory deprivation or inhibition. Only recently it was suggested to me that constant, unfluctuating light can be construed as repetition and therefore as a sensory inhibitor. It forces into high definition the sense of sight at the expense of the other senses and, in addition, over a period of time deprives the sense of sight itself of its initial sensitivity. We have painstakingly arrived at standards, in terms of unfluctuating foot candles, which actually delimit our modes of apprehension. Up to now the validity of the assumption that unfluctuating light is ideal for learning has never been challenged. In the museum it is our intention to carry out an experiment, in a new gallery, where fluctuating lighting will be used to induce involvement and prolongation of attention.

A museum designer must be sensitive to the artifacts of other cultures as well as to the specimens of disciplines which have been organized on the basis of visual assumptions. Perhaps even more important, however, he must be sensitive to the changing sense orientation of the contemporary audience. The ability inherent in electronic communication techniques to alter the structure of the recipient mind has been underlined recently by an optometric discovery. A report by Dr. A. Hurst working with children in the schools of Newmarket, Ontario, suggests that children in the primary grades show a considerable myopia and are tending to bring the book closer to the eyes, the average near point distance being 6½ inches. At this distance it becomes necessary for many children to suppress, psychologically and physiologically, the function of one eye. The child becomes effectively monocular. Marshall McLuhan has stated that this is an attempt on the part of the child to accommodate himself to the psychological pressures of the TV medium. That the media possess the power of silently imposing their own assumptions has not been sufficiently appreciated. The designer, particularly in those areas explicitly devoted to communication, recognizes that he must satisfy the media-generated demands for changing sensory involvement.

It is very possible that one of the most crucial problems of communication in education today is the dichotomy which exists between

the patterns of organization of traditional disciplines and the structure of the sensory apprehension when this is conditioned by mechanical and electronic communication. To impose the fragmenting principles of organization that derive from phonetic literacy upon the immediacy of TV, for example, is to weaken the logical sequence of literacy, to rob TV of its unique capacity for exploration in depth and thus probably to lose one's audience.

The museum designer today is faced with a complex problem. The earlier developers of museums (and many curators today) took it for granted that the order to be imposed was that of the separate disciplines. The ability to abstract and formulate ideas led to a concern with the output of the communication system with little regard for the ability of the audience to receive the communication. In fact, it led to the situation where, if the receptivity of an individual did not match the visual bias of the scholarly discipline, learning was practically impossible. So long as the book existed as the principal method, or even the sole method, of scholarly exposition only the visually inclined could expect to gain intellectually. Today, however, intellectual possibilities are increasing for people primarily oriented to senses other than the visual. In the twentieth century the William Blakes become respectable. As the electronic media alter the sensibilities it becomes necessary for museum designers to communicate with audiences which respond more to iconic inclusiveness than they do to serial exposition. It is on this ground that the museum designer along with all contemporary artists must meet the challenge of communication. The museum artists must be prepared to stress the immediacy of apprehension through all the senses as these are incorporated in museum specimens. To the layman, and we are all laymen in most areas, the arbitrary imposition of visual organization arising from the discipline itself is a serious barrier to involvement.

The museum, as an inclusive inventory of the extensions of man, can perhaps lead the way in the contemporary attempt to reorganize the exposition of disciplines. It can only do this, however, in the light of the new assumptions of time and space being created by electric instantaneity.